

ABSTRACT OF THE DISCLOSURE

An uninterrupted power supply (UPS) device with uninterrupted neutral from input to output utilizes the same converter for converting rectified AC power and battery power 5 to positive and negative high voltage (HV) rails. A simple circuit is utilized for connecting the battery to the conversion components of the PFC circuit without adverse affect on the performance of the PFC circuit, and while holding the battery substantially connected to neutral. In a 10 first embodiment, the circuit comprises a simple combination of four diodes and a pair of high pass capacitors arranged so that in both power line and battery supply modes the battery is balanced around neutral. In a second, preferred embodiment, one terminal of the battery is connected directly 15 to neutral.